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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com

PPROCESSING@SUGHRUE.COM

USPTO@SUGHRUE.COM

Office Action Summary

Application No.

10/647,255

Applicant(s)

VERGNAUD ET AL.

Examiner

JOSHUA JOO

Art Unit

2445

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-15, 17-35, 37-41, 43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-15, 17-35, 37-41, 43 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed Action

This Office action is in response to Applicant's communication filed on July 30, 2010.

Claims 1-9, 11-15, 17-35, 37-41, 43, and 44 are pending in the application.

Response to Arguments/Remarks

Applicant's arguments with respect to claims 1-9, 11-15, 17-35, 37-41, 43, and 44 have been considered but are moot in view of the new ground(s) of rejection. New ground(s) of rejection are necessitated by Applicant's amendment.

Applicant also argued that:

(1) Applicant amends claim 1 to recite "a control module". The specification discloses that a control module can take the form of electronic circuits, and accordingly, Applicant submits claim 1 is statutory.

In response, based on Applicant's specification (page 17, second paragraph), the control module is not required to be in the form of an electronic circuit and could take the form of software modules. However, claim 1 has also been amended to recite "said server connected to at least one local area network access point" which inherently suggests hardware. In other words, hardware is needed for a server to be connected to an access point. Therefore, the 35 U.S.C. 101 rejection is withdrawn and the claimed server is considered as a server comprising hardware.

(2) Even assuming arguendo that updating service plans corresponds to the claimed "modif[y]ing an allocated priority level", Applicant submits that Hagen fails to disclose or suggest a module that automatically modifies an allocated priority level as a function of the available resources of said local area network.

In response, Brewer et al. US Patent No. 7,002,980 is newly introduced in this Office action, which clearly teaches the concept of automatically modifying an allocated priority level as a function of

the available resources of a network by allocating excess bandwidth to a QOS level (col. 2, lines 1-12; col. 4, lines 17-28; col. 5, lines 11-17, 63-67).

The followings references, which are being made of record, also teach of automatically modifying an allocated priority level as a function of the available resources of a network.

- a) Miernik et al. US Patent No. 7,155,215 teaches of upgrading a class of service based on availability of bandwidth.
- b) Marinoho et al. US Patent No. 6,738,637 teaches of upgrading or downgrading classes of service based on availability of resources.

Drawings

Replacement drawing filed July 30, 2010 is accepted.

Claim Objections

Objection of claims 1-44 set in the Office action dated April 23, 2010 is withdrawn in view of Applicant's amendment.

Claims 14-15 and 44 are objected to because of the following informalities:

- a) Regarding claim 14, the claim recites "the third level" and depends on amended claim 11, which currently depends on claim 1. Claims 1, 11, and 14 do not provide basis for the third level. However, claim 13 recites "a third priority level". Thus, it appears that claim 14 should depend on claim 13 or the claim should be amended to provide basis.
- b) Regarding claim 44, "the PLMN public networks" should be changed to "the PLMN" or in claim 43, "PLMN" should be changed to "PLMN public networks" to provide clear basis.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-9, 11-15, 28-35, 37-41, 43, and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a) Regarding claims 4 and 7, "said first terminals" has insufficient antecedent basis.
- b) Regarding claim 11, "the primary MAC addresses and the secondary MAC addresses" and "said table" have insufficient antecedent basis.
- c) Regarding claim 12, "said first terminals" and "said second terminals" have insufficient antecedent basis.
- d) Regarding claim 13, "said third terminal" and "said table" have insufficient antecedent basis.
- e) Regarding claim 28, the claim recites "allocated to the terminals" and "whether the terminals are classified". However, the claim recites classifying and allocating to said terminal, i.e. a single terminal.
- f) Regarding claim 37, "the primary MAC addresses and the secondary MAC addresses" and "said table" have insufficient antecedent basis.
- g) Regarding claim 39, "said third terminal" and "said table" have insufficient antecedent basis.
- h) Regarding claims 40-41, the claims depends on canceled claim 36.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11-14, 17, 21-35, 37-40, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen, US Publication No. 2002/0075844 (Hagen hereinafter), in view of Yamaguchi, US Publication No. 2002/0178365 (Yamaguchi hereinafter) and Brewer et al. US Patent No. 7,002,980 (Brewer hereinafter).

As per claim 1, Hagen teaches substantially the invention as claimed including a processing server for allocating to user terminals resources of a local area network, said server connected to at least one local area network access point, said server comprising:

a control module, which:

classifies the terminals into a first group or a second group according to whether or not the terminals establish a "type of" communication with said local area network (Paragraph 0048, 0050. Determine if terminal is registered and authorized, MAC is registered.); and

allocates resources of said local area network to the terminals attempting to establish communication with said local area network as a function of whether the terminals are classified in said first group or said second group (Paragraphs 0050-0051. Allocate resources if terminal is registered/authorized.),

wherein said control module allocates at least two priority levels to the terminals for said allocation of resources of the local area network according to whether the terminals are classified in said first group or said second group (Paragraphs 0050-0051. Allocate assigned QOS level and resources. Paragraphs 0107, 0110. Given priority/level depending on priority, standard, unregistered, etc...)

Hagen teaches of classifying terminals but not specifically according to whether or not the terminals establish an encrypted communication with said local area network. Hagen does not specifically teach of a module that automatically modifies an allocated priority level as a function of the available resources of said local area network.

Yamaguchi teaches of classifying terminals according to whether the terminals establish an encrypted communication with a local area network (Paragraphs 0025, 0039; claim 1. Level of access based on whether communication is encrypted.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to classify terminals according to whether or not the terminals establish an

encrypted communication with said local area network. The motivation for the suggested combination is that Yamaguchi's teachings would improve security in Hagen's teachings by controlling a level of access to resources based on security of a connection.

Brewer teaches of a module that automatically modifies an allocated priority level as a function of the available resources of a network (col. 4, lines 17-28. Bandwidth pre-allocated to each QOS level. col. 2, lines 1-12; col. 5, lines 11-17, 63-67. Excess bandwidth added to QOS level.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to automatically modify an allocated priority level as a function of the available resources of said local area network. The motivation for the suggested combination is that Brewer's teachings would improve the suggested system by providing instantaneous management of congestion and improving efficiency by using unused bandwidth.

As per claim 28, Hagen teaches substantially the invention as claimed including a method of allocating resources of a local area network to user terminals via at least one access point to said local area network, said method comprising:

in the case of an attempt at setting up a connection with said local area network by a terminal of said terminals, classifying said terminal in a first group or a second group according to whether or not said terminal establishes a "type of" connection with said local area network (Paragraph 0048, 0050. Determine if terminal is registered and authorized, MAC is registered.); and

allocating resources of said local area network to said terminal as a function of whether said terminal is classified in said first group or said second group (Paragraphs 0050-0051. Allocate resources if terminal is registered/authorized.),

wherein at least two levels of priority for allocation of resources of the local area network are allocated to the terminals according to whether the terminals are classified in said first group or said

second group (Paragraphs 0050-0051. Allocate assigned QOS level and resources. Paragraphs 0107, 0110. Given priority/level depending on priority, standard, unregistered, etc...)

Hagen teaches of classifying a terminal but not specifically according to whether or not the terminal establishes an encrypted connection with said local area network. Hagen does not specifically teach wherein an allocated priority level is automatically modified as a function of the available resources of said local area network.

Yamaguchi teaches of classifying terminals according to whether the terminals establish an encrypted connection with a local area network (Paragraphs 0025, 0039; claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to classifying the terminal according to whether or not the terminal establish an encrypted connection with said local area network. The motivation for the suggested combination is that Yamaguchi's teachings would improve security in Hagen's teachings by controlling a level of access to resources based on security of the connection.

Brewer teaches of automatically modifies an allocated priority level as a function of the available resources of a network (col. 4, lines 17-28. Bandwidth pre-allocated to each QOS level. col. 2, lines 1-12; col. 5, lines 11-17, 63-67. Excess bandwidth added to QOS level).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to automatically modify an allocated priority level as a function of the available resources of said local area network. The motivation for the suggested combination is that Brewer's teachings would improve the suggested system by providing instantaneous management of congestion and improving efficiency by using unused bandwidth.

As per claim 2, Hagen, Yamaguchi, and Brewer teach the server according to claim 1. Hagen further teaches wherein said control module determines a MAC address of each of said terminals

attempting to establish communication with said local area network (Paragraph 0048. Lookup MAC address.); and said processing server further comprises means for allocating an IP address to each of said terminals attempting to establish communication with said local area network, and having the MAC address determined by said control module (Paragraphs 0052, 0068. Allocate IP address.).

As per claim 3, Hagen, Yamaguchi, and Brewer teach the server according to claim 2. Hagen further teaches wherein said allocation means are of the DHCP type (Paragraph 0052, 0066. DHCP.).

As per claim 4, Hagen, Yamaguchi, and Brewer teach the server according to claim 2. Hagen teaches the server further comprising a memory for storing a table containing primary MAC addresses associated with said first terminals of said terminals, said first terminals exchange data frames encrypted in accordance with at least one format (Paragraph 0048, 0158-0159. MAC address in local database. Paragraph 0049. Encrypted communication.).

As per claim 5, Hagen, Yamaguchi, and Brewer teach the server according to claim 4. Hagen teaches wherein said table contains secondary MAC addresses associated with second terminals of said terminals, said second terminals exchange unencrypted data frames (Paragraphs 0048, 0050. MAC address in local database. Paragraph 0128, 0220. Unencrypted communication.).

As per claim 6, Hagen, Yamaguchi, and Brewer teach the server according to claim 5. Hagen teaches wherein: said control module determines whether an extracted MAC address, extracted from a received frame, is one of said primary or secondary MAC addresses and, if said determination is affirmative, said control module sends the allocation means a request to allocate a primary IP address to a terminal corresponding to said extracted MAC address, to allow said terminal corresponding to said

extracted MAC address to set up a link with at least one first remote network and one second remote network and (Paragraphs 0048, 0158-0159. If MAC address is registered, provide IP address assignment. Access network with IP address.),

if said determination is negative, said control module sends the allocation means a request to allocate a secondary IP address to the terminal corresponding to said extracted MAC address, referred to as a third terminal, to allow said third terminal to set up a connection with at least one second remote network (Paragraphs 0052, 0107. If MAC address not registered, provide temporary IP address.).

As per claim 7, Hagen, Yamaguchi, and Brewer teach the server according to claim 6. Hagen teaches the server characterized in that said first terminals are associated with said at least one first remote network (Fig. 13; Paragraphs 0048, 0107. Clients of provider's private network.).

As per claim 8, Hagen, Yamaguchi, and Brewer teach the server according to claim 6. Hagen teaches characterized in that said second terminals belong to known users of said at least one first remote network (Fig. 13; Paragraphs 0048, 0107. Clients of network.).

As per claim 9, Hagen, Yamaguchi, and Brewer teach the server according to claim 6. Hagen teaches wherein: each first remote network is selected from a group comprising private networks, IP data networks, and public switched telephone networks (Fig. 13; Paragraphs 0048, 0107. Private network, Internet.); and each second remote network is selected from a group comprising IP data networks and public switched telephone networks (Fig. 13; Paragraph 0107. Public access network, Internet, PSTN.).

As per claim 11, Hagen, Yamaguchi, and Brewer teach the server according to claim 1. Hagen further teaches wherein the primary MAC addresses and the secondary MAC addresses in said table are

stored in corresponding relationship to at least one of said priority levels (Paragraph 0050. Allocate resources and assign QoS level based on MAC address. Paragraph 0107. Priority levels).

As per claim 12, Hagen, Yamaguchi, and Brewer teach the server according to claim 11. Hagen further teaches wherein said priority levels comprise: at least one first priority level allocated to said first terminals associated with primary MAC addresses; and one second priority level allocated to said second terminals associated with secondary MAC addresses (Paragraph 0050. Allocate resources and assign QoS level based on MAC address. Paragraph 0107. Priority levels.).

As per claim 13, Hagen, Yamaguchi, and Brewer teach the server according to claim 12. Hagen further teaches wherein said control module allocates a third priority level for allocation of resources of the local area network to said third terminal setting up communications not encrypted in accordance with said at least one format and whose MAC addresses are not in said table (Paragraph 0052. Terminal with address not located in database. Reduced communications. Paragraph 0107. Category of users and priority levels).

As per claim 14, Hagen, Yamaguchi, and Brewer teach the server according to claim 11. Hagen further teaches wherein said priority levels apply at least to a bandwidth, and said bandwidth decreases from the first level to the third level (Paragraph 0050. Bandwidth based on assigned QOS. Paragraph 0107. Levels of priority and bandwidth.).

As per claim 17, Hagen, Yamaguchi, and Brewer teach the server according to claim 1. Hagen teaches said server is connected to said local area network by a cable connection (Paragraph 0056. Cable interface. Paragraph 0059. Connect to LAN.).

As per claim 21, Hagen, Yamaguchi, and Brewer teach a router, including a processing server according to claim 1 (Hagen: Paragraph 0054. NAS integrated with interface 14, i.e. router. Paragraphs 0066, 0185. NAS as router. Also see rejection claim 1).

As per claim 22, Hagen, Yamaguchi, and Brewer teach a local area network access point, including a processing server according to claim 1 (Hagen: Paragraph 0054. NAS implemented with WAP. Also see rejection claim 1).

As per claim 23, Hagen, Yamaguchi, and Brewer teach a communication installation comprising: at least one local area network accessible via at least one access point; at least one first remote network; at least one second remote network; and a processing server according to claim 1, which is connected to said access point and said first and second remote networks (Hagen: Figs. 1 and 13. LAN connected to WAP. NAS connected to WAP, Internet, PSTN. Also see rejection of claim 1).

As per claim 24, Hagen teaches the installation according to claim 23, wherein said local area network is a wireless local area network (Paragraphs 0042, 0045. Wireless LAN.).

As per claim 25, Hagen teaches the installation according to claim 23, wherein said processing server is connected to said first remote network via a virtual private network (Paragraphs 0070, 0146. Establish VPN between NAS and IODS. Paragraphs 0217-0218. IPSec between devices.).

As per claim 26, Hagen teaches the installation according to claim 23, wherein said processing server is connected to said first remote network via a remote access server (Paragraphs 0053, 0062. Connect to Internet. Paragraphs 0070, 0146. Connection between NAS and IODS.).

As per claim 27, Hagen teaches the installation according to claim 23, wherein: each said first remote network is chosen from a group comprising private networks, IP data networks, and public switched telephone networks ; and each said second remote network is selected from a group comprising IP data networks and public switched telephone networks (Fig. 13; Paragraphs 0048, 0107. Private network, Internet, PSTN).

As per claim 29, Hagen, Yamaguchi, and Brewer teach the method according to claim 28. Hagen further teaches the method comprising: in the event of an attempt by said terminal to set up a connection with said local area network, determining a MAC address of said terminal, and allocating an IP address to said terminal (Paragraph 0048. Lookup MAC address from packet. Paragraphs 0052, 0068. Allocate IP address.).

As per claim 30, Hagen, Yamaguchi, and Brewer teach the method according to claim 29. Hagen further teaches the method comprising: providing a table containing primary MAC addresses associated with first terminals of said terminals, said first terminals exchange data frames encrypted in accordance with at least one format (Paragraph 0048, 0158-0159. MAC address in local database. Paragraph 0049. Encrypted communication.).

As per claim 31, Hagen, Yamaguchi, and Brewer teach the method according to claim 30. Hagen further teaches wherein said table contains secondary MAC addresses associated with second terminals of

said terminals, said second terminals exchange unencrypted data frames (Paragraphs 0048, 0050. MAC address in local database. Paragraph 0128, 0220. Unencrypted communication.).

As per claim 32, Hagen, Yamaguchi, and Brewer teach the method according to claim 31. Hagen further teaches the method comprising: making a determination as to whether an extracted MAC address, extracted from a received frame, is one of said primary or secondary MAC addresses; and if said determination is affirmative, allocating a primary IP address to the terminal corresponding to said extracted MAC address to allow said terminal to set up a connection with at least one first remote network and one second remote network (Paragraphs 0048, 0158-0159. If MAC address is registered, provide IP address assignment. Access network with IP address); and if said determination is negative, allocating a secondary IP address to the terminal corresponding to said extracted MAC address, referred to as a third terminal, to allow said third terminal to set up a connection with a least one second remote network (Paragraphs 0052, 0107. If MAC address not registered, provide temporary IP address.).

As per claim 33, Hagen, Yamaguchi, and Brewer teach the method according to claim 32. Hagen further teaches wherein said first terminals are associated with said at least one first remote network (Fig. 13; Paragraph 0043. Provide access to public network using private networks. Paragraphs 0048, 0107. Clients of provider's private network. Paragraph 0052. Set of private/public networks.).

As per claim 34, Hagen, Yamaguchi, and Brewer teach the method according to claim 32. Hagen further teaches wherein said second terminals belong to known users of said at least one first remote network (Fig. 13; Paragraphs 0048, 0107. Clients of network. Paragraph 0052. Set of private/public networks.).

As per claim 35, Hagen, Yamaguchi, and Brewer teach the method according to claim 32. Hagen further teaches wherein: each first remote network is selected from a group comprising private networks, IP data networks, and public switched telephone networks (Fig. 13; Paragraphs 0048, 0107. Private network, Internet.); and each second remote network is selected from a group comprising IP data networks and public switched telephone networks (Fig. 13; Paragraph 0107. Public access network, Internet, PSTN.).

As per claim 37, Hagen, Yamaguchi, and Brewer teach the method according to claim 28. Hagen teaches wherein the primary MAC addresses and the secondary MAC address in said table are stored in corresponding relationship to at least one of said priority levels (Paragraph 0050. Profile corresponding to MAC address. Allocate resources and assign QoS level based on MAC address. Paragraph 0107. Priority levels.).

As per claim 38, Hagen, Yamaguchi, and Brewer teach the method according to claim 37. Hagen teaches wherein said priority levels comprise: at least one first priority level allocated to first terminals associated with primary MAC addresses; and at least one second priority level allocated to second terminals associated with secondary MAC addresses (Paragraph 0050. Allocate resources and assign QoS level based on MAC address. Paragraph 0107. Priority levels.).

As per claim 39, Hagen, Yamaguchi, and Brewer teach the method according to claim 38. Hagen teaches wherein a third priority level for allocation of resources of the local area network is allocated to said third terminal setting up communications that are not encrypted in accordance with said at least one format and whose MAC addresses are not in said table (Paragraph 0050. Profile corresponding to MAC

address. Paragraph 0052. Terminal with address not located in database. Reduced communications. Paragraph 0107. Category of users and priority levels.).

As per claim 40, Hagen, Yamaguchi, and Brewer teach the method according to claim 36. Hagen teaches wherein said priority levels relate at least to a bandwidth, and said bandwidth decreases from the first level to the third level (Paragraph 0050. Bandwidth based on assigned QOS. Paragraph 0107. Levels of priority and bandwidth.).

As per claim 43, Hagen, Yamaguchi, and Brewer teach the method according to claim 28. Hagen further teaches wherein said local area network is selected from the group comprising PLMN, PABX private networks, and private communication gateways (Fig. 1 and 14; Paragraph 0043. Private networks.).

Claims 15, 18, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen, in view of Yamaguchi, Brewer, and Immonen et al. US Publication No. 2002/0132611 (Immonen hereinafter).

As per claim 15, Hagen does not specifically teach the server according to claim 14, wherein said control module sends said access point data representative of said bandwidth assigned to a designated terminal, and said access point allocates the corresponding resources to said designated terminal.

Immonen teaches of an access control that sends to an access point, data representative of bandwidth assigned to a designated terminal, and said access point allocates the corresponding resources to said designated terminal (Paragraphs 0046, 0048-0049).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for said control means to send said access point data representative of said

bandwidth assigned to a designated terminal, and for said access point allocate the corresponding resources to said designated terminal. The motivation for the suggested combination is that Immonen's teachings would improve the suggested system by employing different levels of service according to the terminal.

As per claim 18, Hagen does not specifically teach the server according to claim 17, said cable connection being an Ethernet link.

Immonen teaches of a server configured to be connected to a local area network by an Ethernet link (Paragraph 0074).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for said cable connection to be an Ethernet link. The motivation for the suggested combination is that Immonen's teachings would improve the suggested system by using networking that is a commonly used, reliable, and compatible with most LANs.

As per claim 41, Hagen does not specifically teach the method according to claim 40, wherein said access point is sent data representative of said bandwidth assigned to a designated terminal, and said access point allocates the corresponding resources to said designated terminal.

Immonen teaches of sending data representative of bandwidth assigned to a designated terminal to an access point and allocating by said access point the corresponding resources to said designated terminal (Paragraphs 0046, 0048-0049).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to send said access point, data representative of said bandwidth assigned to a designated terminal, and for said access point to allocate the corresponding resources to said designated

terminal. The motivation for the suggested combination is that Immonen's teachings would improve the suggested system by employing different levels of service according to the terminal.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen, in view of Yamaguchi, Brewer, and Sisodia et al. US Publication No. 2003/0165128 (Sisodia hereinafter).

As per claim 19, Hagen does not specifically teach the server according to claim 1, said server is connected to said local area network by a radio link.

Sisodia teaches of a server configured to be connected to a local area network by a radio link (Paragraphs 0029, 0045).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the server to be configured to be connected to said local area network by a radio link. The motivation for the suggested combination is that Sisodia's teachings would improve the suggested system by providing different communication facilities to link a server with access points.

As per claim 20, Hagen does not specifically teach the server according to claim 19, wherein said radio link is a 802.11b radio link.

Sisodia teaches of a server configured to be connected to a local area network by a 802.11b radio link (Paragraphs 0029, 0045).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings for the server to be configured to be connected to said local area network by a 802.11b radio link. The motivation for the suggested combination is that Sisodia's teachings would improve the suggested system by providing different communication facilities to link a server with access points.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen, in view of Yamaguchi, Brewer, and Bichot et al. US Publication No. 2003/0214929 (Bichot hereinafter).

As per claim 44, Hagen does not specifically teach the method according to claim 43, wherein the PLMN public networks are mobile networks selected from the group comprising GSM, GPRS, and UMTS networks.

Bichot teaches of implementing a GPRS based PLMN public network (Paragraph 0011, 0012).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings to implement PLMN public network selected from the group comprising GSM, GPRS, and UMTS networks. The motivation for the suggested combination is that Bichot's teachings would improve the suggested system by utilizing a network that efficiently routes packets.

Conclusion

Examiner has cited particular sections of the reference(s) that are applied to the claims. While the sections are cited for convenience and are representative of the teachings of the prior art, other sections of the reference(s) may be relevant and applicable to the claims. It is respectfully requested that Applicant fully consider the reference(s) in its entirety when responding to the Office action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Friday 7 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Andrew T. Caldwell can be reached at 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Joshua Joo/
Examiner, Art Unit 2445